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<b>TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371</b>		ATTORNEY'S DOCKET NUMBER 514572001200
INTERNATIONAL APPLICATION NO. PCT/CN2003/000580	INTERNATIONAL FILING DATE 18 July 2003	U.S. APPLICATION NO. (if known, see 37 CFR 1.5) 10/562,803
TITLE OF INVENTION DNA CHIP BASED GENETIC TYPING		PRIORITY DATE CLAIMED 30 June 2003
APPLICANT(S) FOR DO/EO/US Huafang GAO et al.		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
<p>1. <input type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371.</p> <p>2. <input checked="" type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371.</p> <p>3. <input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.</p> <p>4. <input type="checkbox"/> The US has been elected (Article 31).</p> <p>5. <input type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371 (c)(2))</p> <p>a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).</p> <p>b. <input type="checkbox"/> has been communicated by the International Bureau.</p> <p>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</p> <p>6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2))</p> <p>a. <input type="checkbox"/> is attached hereto.</p> <p>b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</p> <p>7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))</p> <p>a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</p> <p>b. <input type="checkbox"/> have been communicated by the International Bureau.</p> <p>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</p> <p>d. <input type="checkbox"/> have not been made and will not be made.</p> <p>8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</p> <p>9. <input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</p> <p>10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</p>		
<p><b>Items 11 to 20 below concern document(s) or information included:</b></p> <p>11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98. (3 pages)</p> <p>12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</p> <p>13. <input type="checkbox"/> A preliminary amendment.</p> <p>14. <input type="checkbox"/> An Application Data Sheet under 37 CFR 1.76.</p> <p>15. <input type="checkbox"/> A substitute specification.</p> <p>16. <input type="checkbox"/> A power of attorney and/or change of address letter.</p> <p>17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 – 1.825.</p> <p>18. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).</p> <p>19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).</p>		

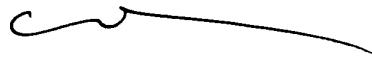
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U.S. APPLICATION NO. (if known, see 37 CFR 1.5) 10/562,803		INTERNATIONAL APPLICATION NO. PCT/CN2003/000580	ATTORNEY'S DOCKET NUMBER 514572001200
20. <input checked="" type="checkbox"/> Other items or information: PTO/SB/08a/b Form (3 pages plus duplicate) References (35) Return Receipt Postcard			
The following fees have been submitted		CALCULATIONS	PTO USEONLY
21. <input type="checkbox"/> Basic national fee (37 CFR 1.492(a)) ..... \$300		\$	
22. <input type="checkbox"/> Examination fee (37 CFR 1.492(c)) If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) ..... \$0 All other situations ..... \$200		\$	
23. <input type="checkbox"/> Search fee (37 CFR 1.492(b)) If the written opinion of the ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) ..... \$0 Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority ..... \$100 International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB ..... \$400 All other situations ..... \$500		\$	
TOTAL OF 21, 22 and 23 =		\$ 0.00	
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.		\$	
Total Sheets	Extra Sheets		
- 100 =	/50 =		x \$250.00
Surcharge of \$130 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).		\$	
CLAIMS		NUMBER FILED	NUMBER EXTRA
Total claims		- 20 =	x
Independent claims		- 3 =	x
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+
TOTAL OF ABOVE CALCULATIONS =		\$ 0.00	
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by ½.		0.00	
SUBTOTAL =		\$ 0.00	
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).		\$	
TOTAL NATIONAL FEE =		\$ 0.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property		\$	
TOTAL FEES ENCLOSED =		\$ 0.00	
		Amount to be refunded:	\$
		Amount to be charged:	\$

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- a.  A check in the amount of \$ \_\_\_\_\_ to cover the above fees is enclosed.
- b.  Please charge my Deposit Account No. \_\_\_\_\_ in the amount of \$ 0.00 to cover the above fees. A duplicate copy of this sheet is enclosed.
- c.  The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 03-1952. A duplicate copy of this sheet is enclosed.
- d.  Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038

**NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.**



SEND ALL CORRESPONDENCE TO:

\_\_\_\_\_  
SIGNATURE

Peng Chen  
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\_\_\_\_\_  
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NAME

CUSTOMER NUMBER: 25225

\_\_\_\_\_  
43,543

REGISTRATION NUMBER

U.S. APPLICATION NO. (if known, see 37 CFR 1.5)  
10/562,803INTERNATIONAL APPLICATION NO.  
PCT/CN2003/000580ATTORNEY'S DOCKET NUMBER  
514572001200

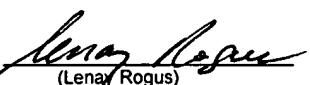
I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail, in an envelope addressed to: MS PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: March 2, 2006Signature: 

(Lenay Rogus)

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I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail, in an envelope addressed to: MS PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: March 2, 2006 Signature:   
(Lena Rogus)

Patent  
Docket No. 514572001200

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:  
Huafang GAO et al.

Serial No.: 10/562,803

Filing Date (Int'l): July 18, 2003

For: DNA CHIP BASED GENETIC TYPING

Examiner: Not Yet Assigned

Group Art Unit: Not Yet Assigned

### INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97 & 1.98

MS PCT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. §1.97 and § 1.98, Applicants submit for consideration in the above-identified application the documents listed on the attached Form PTO/SB/08a/b. Copies of foreign documents and non-patent literature are submitted herewith. The Examiner is requested to make these documents of record.

The document numbers 31, 43, 44, 46, 47, 48, and 73 listed on the attached Form PTO/SB/08a/b were cited in an International Search Report mailed on July 29, 2004, directed to a counterpart international or foreign application and have not been previously cited.

This Information Disclosure Statement is submitted:

- With the application; accordingly, no fee or separate requirements are required.
- Before the mailing of a first Office Action after the filing of a Request for Continued Examination under § 1.114. However, if applicable, a certification under 37 C.F.R. § 1.97 (e)(1) has been provided.
- Within three months of the application filing date or before mailing of a first Office Action on the merits; accordingly, no fee or separate requirements are required. However, if applicable, a certification under 37 C.F.R. § 1.97 (e)(1) has been provided.
- After receipt of a first Office Action on the merits but before mailing of a final Office Action or Notice of Allowance.
  - A fee is required. A check in the amount of \_\_ is enclosed.
  - A fee is required. Accordingly, a Fee Transmittal form (PTO/SB/17) is attached to this submission in duplicate.
  - A Certification under 37 C.F.R. § 1.97(e) is provided above; accordingly; no fee is believed to be due.
- After mailing of a final Office Action or Notice of Allowance, but before payment of the issue fee.
  - A Certification under 37 C.F.R. § 1.97(e) is provided above and a check in the amount of \_\_ is enclosed.
  - A Certification under 37 C.F.R. § 1.97(e) is provided above and a Fee Transmittal form (PTO/SB/17 is attached to this submission in duplicate.)

Applicants would appreciate the Examiner initialing and returning the Form PTO/SB/08a/b, indicating that the information has been considered and made of record herein.

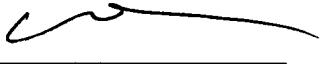
The information contained in this Information Disclosure Statement under 37 C.F.R. § 1.97 and § 1.98 is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to the examination of this application does not exist;

(iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

In the unlikely event that the transmittal form is separated from this document and the Patent and Trademark Office determines that an extension and/or other relief (such as payment of a fee under 37 C.F.R. § 1.17 (p)) is required, Applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petition and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing 514572001200.

Dated: March 1, 2006

Respectfully submitted,

By   
Peng Chen  
Registration No.: 43,543  
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12531 High Bluff Drive  
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(858) 720-5117

Substitute for form 1449/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>	
Sheet	1	of	3	Application Number	10/562,803
				Filing Date	(Int'l) July 18, 2003
				First Named Inventor	Huafang GAO
				Art Unit	Not Yet Assigned
				Examiner Name	Not Yet Assigned
				Attorney Docket Number	514572001200

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
1.	US-4,134,792		01-16-1979	Boguslaski et al.	
2.	US-4,230,797		10-28-1980	Boguslaski et al.	
3.	US-4,238,565		12-09-1980	Hornby et al.	
4.	US-4,336,173		06-22-1982	Ugelstad et al.	
5.	US-4,421,660		12-20-1983	Solc nee Hajna	
6.	US-4,490,436		12-25-1984	Kawakami et al.	
7.	US-4,554,088		11-19-1985	Whitehead et al.	
8.	US-4,582,788		04-15-1986	Erlich	
9.	US-4,654,267		03-31-1987	Ugelstad et al.	
10.	US-4,683,195		07-28-1987	Mullis et al.	
11.	US-4,683,202		07-28-1987	Mullis	
12.	US-4,774,265		09-27-1988	Ugelstad et al.	
13.	US-4,800,159		01-24-1989	Mullis et al.	
14.	US-4,965,007		10-23-1990	Yudelson	
15.	US-4,965,188		10-23-1990	Mullis et al.	
16.	US-5,091,206		02-25-1992	Wang et al.	
17.	US-5,119,801		06-09-1992	Eizenhoefer et al.	
18.	US-5,130,238		07-14-1992	Malek et al.	
19.	US-5,143,854		09-01-1992	Pirrung et al.	
20.	US-5,232,782		08-03-1993	Charmot	
21.	US-5,270,184		12-14-1993	Walker et al.	
22.	US-5,283,079		02-01-1994	Wang et al.	
23.	US-5,288,514		02-22-1994	Ellman	
24.	US-5,312,233		05-17-1994	Tanny et al.	
25.	US-5,312,728		05-17-1994	Lizardi et al.	
26.	US-5,318,797		06-07-1994	Matijevic et al.	
27.	US-5,348,855		09-20-1994	Dattagupta et al.	
28.	US-5,384,261		01-24-1995	Winkler et al.	
29.	US-5,395,688		03-07-1995	Wang et al.	
30.	US-5,541,061		07-30-1996	Fodor et al.	
31.	US-5,545,531		08-13-1996	Rava et al.	
32.	US-5,556,752		09-17-1996	Lockhart et al.	
33.	US-5,561,071		10-01-1996	Hollenberg et al.	
34.	US-5,648,211		07-15-1997	Fraiser et al.	
35.	US-5,677,195		10-14-1997	Winkler et al.	
36.	US-5,702,885		12-30-1997	Baxter-Lowe et al.	
37.	US-5,834,121		11-10-1998	Sucholeiki et al.	
38.	US-6,004,745		12-21-1999	Arnold, Jr. et al.	
39.	US-6,024,138		02-15-2000	Fritz et al.	
40.	US-6,150,097		11-21-2000	Tyagi et al.	
41.	US-6,156,508		12-05-2000	Spears et al.	
42.	US-6,300,076		10-09-2001	Koster	

Examiner Signature		Date Considered
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<p>Substitute for form 1449/PTO</p> <p><b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b></p> <p><i>(Use as many sheets as necessary)</i></p>				<b>Complete if Known</b>	
				Application Number	10/562,803
				Filing Date	(Int'l) July 18, 2003
				First Named Inventor	Huafang GAO
				Art Unit	Not Yet Assigned
				Examiner Name	Not Yet Assigned
Sheet	2	of	3	Attorney Docket Number	514572001200

43.	US-6,465,183	09-26-2002	Wolber	
44.	US-2003/0119178-A1	06-26-2003	Sato et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
45.	CN-1347958		05-08-2002	Guangshun Yi et al.		
46.	CN-1392268		01-22-2003	Wei Zhao et al.		
47.	CN-1400315		03-05-2003	Wang et al.		
48.	CN-1405322		03-26-2003	Wu et al.		
49.	EP-0 684 315		11-29-1995	Fraiser et al.		
50.	GB-1,548,741		07-18-1979	Miles Laboratories		
51.	WO-02/075309		09-26-2002	Aviva Biosciences		

\*EXAMINER: Initial if information considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS						
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				T <sup>2</sup>
52.	BLEANEY and BLEANEY, Chapter 6 in "Electricity and Magnetism" Oxford (1975) pages 169-174					
53.	BLEANEY and BLEANEY, Chapter 16 in "Electricity and Magnetism" Oxford (1975) pages 519-524					
54.	BROUDE et al., Nucleic Acids Res. (2001) 29(19):E92					
55.	CAO et al., Rev. Immunogenet. (1999) 1:177-208					
56.	DATTAGUPTA et al., Analytical Biochemistry (1989) 177:85-89					
57.	FORSTER et al., Nucleic Acid Res. (1985) 13:745					
58.	GORUS and SCHRAM, Clin. Chem. (1979) 25:512-519					
59.	GRAVITT et al., J. Clin. Micro. (1998) 36:3020-3027					
60.	GUO et al., Rev. Immunogenet. (1999) 1:220-230					
61.	HERTZBERG et al., J. Amer. Chem. Soc. (1982) 104:313					
62.	International Search Report for PCT/CN03/00580, mailed on July 29, 2004, 3 pages					
63.	KAHIWASE, Rinsho Byori Suppl. (1999) 110:99-106					
64.	KWOH et al., PNAS USA (1989) 86:1173-1177					
65.	MATIJEVIC, Acc. Chem. Res. (1981) 14:22-29					
66.	MATTEUCCI et al., J. Am. Chem. Soc. (1981) 3:3185-3191					
67.	MILLIGAN et al., J. Med. Chem. (1993) 36:1923					
68.	MITCHELL et al., J. Am. Chem. Soc. (1982) 104:4265					
69.	MYTILINEOS et al., Hum. Immunol. (1998) 59:512-517					
70.	SAIKI et al., PNAS USA (1989) 86:6230-6234					

Examiner Signature	Date Considered
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Substitute for form 1449/PTO				<i>Complete if Known</i>	
				Application Number	10/562,803
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				Examiner Name	Not Yet Assigned
Sheet	3	of	3	Attorney Docket Number	514572001200

71.	SHAW et al., Nucleic Acids Res. (1991) 19:747	
72.	SOINI and HEMMILA, Clin. Chem. (1979) 25:353-361	
73.	TIAN ZHENJUN et al., Chin. J. Sports Med. (2002) 21(2):	
74.	TYAGI et al., Nature Biotechnology (1996) 14:303-308	
75.	VANDENBERGHE et al., J. of Magnetism and Magnetic Materials (1980) 15-18:1117-1118	
76.	WHITE et al., Meth. Enzymol. (1977) 46:644	
77.	WHITEHEAD et al., Clin. Chem. (1979) 25:1531-1546	
78.	WISDOM, Clin. Chem. (1976) 22:1243	
79.	WOOD et al., PNAS USA (1985) 82:1585-1588	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature		Date Considered	
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sd-298460